

From: Obegi, Doug [mailto:dobegi@nrdc.org]  
Sent: Monday, November 07, 2011 1:53 PM  
To: Jemaa, Fethi Ben  
Subject: NRDC Comments on Draft Report on Quantifying Agricultural Water Use Efficiency

Dear Fethi,

In response to the Department's request at the A1 subcommittee meeting for comments today on the draft report on Quantifying Agricultural Water Use Efficiency, below are six broad comments on the draft report. Please let me know if the Department has any questions about these comments.

Thanks,  
Doug

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NRDC Comments on Draft Report on Quantifying Agricultural Water Use Efficiency

1. The discussion of irrigation efficiency / Consumptive Use Fraction on page 7-8 is extremely one sided and inappropriate, and NRDC does not support this discussion as currently written because it overemphasizes the limitations of the irrigation efficiency approach without even mentioning the significant limitations of the other approaches. Unless the report is going to include robust critiques of the other metrics, this discussion should be deleted (e.g., from the paragraph beginning, "Discussion of irrigation efficiency..." to the paragraph that ends with, "...desired outcome of crop production.").

2. The discussion of irrigation efficiency on page 7-8 of the report, and several of the metrics, seems to blur the line between water use efficiency and beneficial use. The statute requires the report to focus on quantifying agricultural water use efficiency, not quantifying beneficial uses. As we have stated several times in the subcommittee meetings, we continue to believe that not all beneficial uses are efficient, nor that all efficient uses are beneficial. Efficiency and beneficial use are two distinct things, and the report should better differentiate between them.

3. The discussion of agronomic water use should be substantially expanded on page 7-11. Elsewhere the report discusses potential double-counting of agronomic water use that also contributes to ETAW, as well as the lack of any objective measure of what constitutes "efficient" agronomic use (see, e.g., on pages 7-16, and 7-30 to 7-31). NRDC believes that the lack of objective standards for agronomic use must be acknowledged, and that any metric which essentially assumes that 100% of agronomic use is efficient will understate the potential efficiency gains that can be had in improving these uses. Indeed, reduced agronomic uses have significant potential to reduce on-farm water use without sacrificing productivity (for instance, with reduced water use for rice decomposition, or better matching crop and soil types to reduce agronomic water use for salt leaching).

4. NRDC supports the suggestion at the A1 subcommittee meeting that agronomic and environmental water use should be subtracted from applied water in the denominator of the equations, rather than being added to ETAW in the numerator, in the Agronomic Beneficial Use Fraction and Total Beneficial Use Fraction equations (for instance, on page 7-16). The revised equations tend

to focus more on the relationship between ETAW and AW, the most fundamental components of water use efficiency, while other beneficial uses of agricultural water are still accounted for.

5. NRDC strongly supports inclusion of the productivity and economic metrics. These metrics are particularly useful over longer time periods to discern trends in "crop per drop" improvements of efficiency. We continue to believe that this metric is useful at the field level, in order for growers to track changes in productivity over time, as well as to assess differences in productivity between fields. While water use will not be the only variable that affects productivity (particularly in a single year), over time significant differences in productivity between fields or districts yields useful information to the grower or district. A field level productivity metric may be a lower priority for implementation, but we strongly encourage DWR to include a field level productivity metric in the report.

6. We strongly support implementation of efficiency metrics at the field scale. While the draft text should be clearer regarding the structure of such a program, we believe that DWR's proposal of a voluntary approach similar to the experience with mobile labs could provide valuable information to growers and districts.